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09/663,333 09/18/00 NILSSON

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EXAMINER

IM52/1018

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ART UNIT

PAPER NUMBER

1731

DATE MAILED:

9
10/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/663,333

Applicant(s)

NILSSON ET AL.

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1 Claims 1-4, 6 and 8 rejected under 35 U.S.C. 103(a) as obvious over Steiner et al (US 5393384) in view of Eklund et al (US 5298124). Steiner uses a belt to guide a paper web through an extended nip press and to transfer the web onto a yankee cylinder, forming an extended transfer nip (Fig. 1). Steiner is silent as to using a pressure responsive belt. However, Eklund's claim 1 discloses a paper web transfer belt for the use in a paper machine having a supporting base and a top melted layer containing polymer and or a filler particle. The top melted layer having an air permeability less than $6 \text{ m}^3/\text{m}^2/\text{min}$, a resettable surface roughness in the range of $R_z = 2 - 80 \mu\text{M}$, polymer coating hardness in the range of Shore A 50 to Shore A 97, and the filler contained in the polymer layer having a hardness different from that of polymer coating. A roughness of $R_z = 0 - 20$ when the polymer layer is compressed by a linear load of $20 \text{ kN/m} - 200 \text{ kN/m}$ is applied to the transfer belt (Column 16 lines 52-57). The air permeability of the belt was measured according to "Standard Test Method for Air Permeability of Textile Fabrics", ASTM D737-75 (Column 8 lines 15-18). The filler comprising the belt may be kaolin clay (Claim 21). The polymer coating may be a

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polyurethane/polycarbonate resin composition (Claim 28). Eklund also discloses that the carrier (woven base) may be woven to produce an endless transfer belt once installed in a paper machine (Column 13 lines 23-36). Eklund also discloses in the abstract that the transfer belt can readily release the paper web due to its recovered uncompressed roughness property. Eklund's elements 7- 8, 29-30 and 46-47 in figures 1-3 disclose the belt being used in a press nip. It would have been obvious to a person of ordinary skill at the time the invention was made to use Steiner's soft tissue paper machine with Eklund's transfer belt because it would easily transfer the paper web to the yankee cylinder.

2 Claim 5 rejected under 35 U.S.C. 103(a) as obvious over Steiner et al (US 5393384) in view of Eklund et al (US 5298124) and in further view of Lundstrom (US 4529643). Steiner uses a belt to guide a paper web through an extended nip press and to transfer the web onto a yankee cylinder, forming an extended transfer nip (Fig. 1). Steiner is silent as to using a pressure responsive belt with polymer enclosing both sides of the carrier. However, Eklund's claim 1 discloses a paper web transfer belt for the use in a paper machine having a supporting base and a top melted layer containing polymer and or a filler particle. The top melted layer having an air permeability less than $6 \text{ m}^3/\text{m}^2/\text{min}$, a resettable surface roughness in the range of $R_z = 2 - 80 \mu\text{M}$, polymer coating hardness in the range of Shore A 50 to Shore A 97, and the filler contained in the polymer layer having a hardness different from that of polymer coating. A roughness of $R_z = 0 - 20$ when the polymer layer is compressed by a linear load of

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20kN/m – 200kN/m is applied to the transfer belt (Column 16 lines 52-57). The air permeability of the belt was measured according to "Standard Test Method for Air Permeability of Textile Fabrics", ASTM D737-75 (Column 8 lines 15-18). The filler comprising the belt may be kaolin clay (Claim 21). The polymer coating may be a polyurethane/polycarbonate resin composition (Claim 28). Eklund also discloses that the carrier (woven base) may be woven to produce an endless transfer belt once installed in a paper machine (Column 13 lines 23-36). Eklund also discloses in the abstract that the belt can readily release the paper web due to its recovered uncompressed roughness property. Eklund's elements 7- 8, 29-30 and 46-47 in figures 1-3 disclose the belt being used in a press nip. Eklund is silent on melting the particle filled polymer layer to both sides of the carrier. However, Lundstrom's carrier is enclosed by a polymer layer (Figure 1). It would have been obvious to a person of ordinary skill at the time the invention was made to enclose Eklund's carrier with a polymer layer in view of Lundstrom's figure 1 to use into Steiner's soft tissue paper machine because it would extend the life of the belt.

3 Claim 7 rejected under 35 U.S.C. 103(a) as obvious over Steiner et al (US 5393384) in view of Eklund et al (US 5298124) and in further view of Trokhan et al (US 5556509). Steiner uses a belt to guide a paper web through an extended nip press and to transfer the web onto a yankee cylinder, forming an extended transfer nip (Fig. 1). Steiner is silent as to using a pressure responsive belt with polymer enclosing both sides of the carrier. However, Eklund's claim 1 discloses a paper web transfer belt for

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the use in a paper machine having a supporting base and a top melted layer containing polymer and or a filler particle. The top melted layer having an air permeability less than $6 \text{ m}^3/\text{m}^2/\text{min}$, a resettable surface roughness in the range of $R_z = 2 - 80 \mu\text{M}$, polymer coating hardness in the range of Shore A 50 to Shore A 97, and the filler contained in the polymer layer having a hardness different from that of polymer coating. A roughness of $R_z = 0 - 20$ when the polymer layer is compressed by a linear load of $20 \text{ kN/m} - 200 \text{ kN/m}$ is applied to the transfer belt (Column 16 lines 52-57). The air permeability of the belt was measured according to "Standard Test Method for Air Permeability of Textile Fabrics", ASTM D737-75 (Column 8 lines 15-18). The filler comprising the belt may be kaolin clay (Claim 21). The polymer coating may be a polyurethane/polycarbonate resin composition (Claim 28). Eklund also discloses that the carrier (woven base) may be woven to produce an endless transfer belt once installed in a paper machine (Column 13 lines 23-36). Eklund also discloses in the abstract that the belt can readily release the paper web due to its recovered uncompressed roughness property. Eklund's elements 7- 8, 29-30 and 46-47 in figures 1-3 disclose the belt being used in a press nip. Eklund is silent on embossing the polymer layer. However, Trokhan shows a belt having an embossed polymer layer to produce an embossed soft tissue (Figure 11). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to emboss Eklund's polymer layer in view of Trokhan to use in Steiner's papermaking machine because it would create an embossed tissue paper once it passes through the press nip section.

Response to Amendment

The amendment filed in Aug. 10, 2001 has been entered in Paper No. 8.

Response to Arguments

Previous rejection of claim 1-8 under U.S.C 112 is withdrawn. Applicant's amendment in Paper No.8 has addressed all 112 issues.

Applicant's arguments filed 8/10/01 have been fully considered but they are not persuasive. In page 6, second paragraph, Applicant argues that the Eklund belt has no "readily removable" properties when said transfer belt is **inside the nip** (As disclosed in Column 7, Ins.25-53). However, said limitation is not included in the claim language. Even if the limitation were in the claims, Eklund describes material composition of the paper-side of the belt provides it with the necessary release properties to transfer the web from the belt (Column 7, In.54ff). Further evidence is found in Eklund's abstract where it is disclosed that said Eklund belt provides readily release properties to convey a paper web to the next belt, felt or fabric. Eklund does not provide a yankee dryer as the next apparatus for the paper web to be transfer to. However, one of ordinary skill in the art knows that the adhesion of the paper web to the yankee dryer caused by the sintering action of the dryer would only enhance the Eklund belt to readily release the paper web. Furthermore, Eklund in Column 5 discloses that the claimed invention provides to overcome conventional transfer belts that fail to provide readily releasable properties. Hence, in view of Eklund's invention in providing a transfer belt having readily releasable properties, one of ordinary skill in the art would be motivated to use Eklund's belt to overcome conventional belts that fail to provide release to the paper web.

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Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In addressing the rejection made of claim 5, Applicant does not specifically point out how the Lundstrom patent fails to show what is lacking between Steiner and Eklund patents. Additionally in claim 5, the carrier comprised by element 72 is completely enclosed by the polymer layer 80 as shown in figure 1 of Eklund.

In addressing the rejection of claim 7, Applicant does not specifically point out how the Trokhan et al patent fails to show what is lacking between Steiner and Eklund patents. Trokhan patent uses an embossed transfer belt to provide embossed patterns to a paper web. It would have been obvious to one of ordinary skill in the art to have modified Eklund's belt with an embossed pattern in order to provide an embossed pattern to a web as taught by Trokhan.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Silverman Stanley can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

C.L
October 16, 2001

A handwritten signature in black ink, appearing to read 'Peter Chin', with a long horizontal flourish extending to the right.

PETER CHIN
PRIMARY EXAMINER